On 15 July 2015, the European Commission (EC) presented a legislative proposal (COM(2015) 337 final) to revise the EU Emission Trading System (ETS) for the period after 2020, in line with the 2030 climate and energy policy framework and the Energy Union strategy.

While the European wood-based Panel Federation (EPF) acknowledges the need for a reform of ETS and a reduced overall amount of emission certificates, it considers that the Wood-Based Panel (WBP) industry is treated incorrectly by the current Proposal.

The WBP sector is truly committed to reducing its carbon and environmental footprint. Actions already taken, mean that abatement costs for further improvement are very high. Realistically, additional CO₂ reductions can only be a consequence of a decrease in production. This should not be an option, since wood products store CO₂ and by decreasing the amount of wood products, the CO₂ in the atmosphere will be higher. This would jeopardise the EU’s opportunities to increase its carbon storage potential to comply with its LULUCF and post Kyoto climate change target commitments.

Despite the positive emission saving effects, which are politically recognised and accountable for in national reporting, there is no mechanism so far to ensure that the industry that makes these savings possible also benefits from them. Instead, the WBP industry now has to carry the double burden of higher expenditures for CO₂ emission certificates, combined with increased costs for ever more scarce raw material.

Therefore, EPF asks the EC to reconsider the free allocation of emission certificates to the WBP industry. EPF also proposes to start a dialogue with the EC in order to define an amount of free allowances to cover the real needs of this core European industry branch that contributes significantly to the prevention of climate change.

Although EPF welcomes an update of the European tools to tackle climate change, we would like to underscore two contributions from the WBP sector which are not properly considered in the Proposal:
- The over-proportionate contribution of the WBP sector to the reduction emission goals,
- The carbon storage potential in Harvested Wood Products (HWP).

EPF would also like to highlight the economic consequences of disregarding these two contributions for the WBP sector.

Over-proportionate contribution of the WBP sector to the reduction emission goals

The WBP sector is truly committed to reducing its carbon and environmental footprints. Its major technique to reduce CO₂ emissions is to substitute fossil energy such as gas and oil by biomass. The WBP sector uses woody biomass derived from its own process residues to produce energy. The shares of energy derived from biomass amount to 78%, 88% and 90% for MDF, particleboard and OSB respectively. Therefore, the WBP sector already uses low carbon fuels to the furthest extent and an increase of low carbon fuels use is hardly possible.
The other way to reduce CO$_2$ emissions is energy reduction. This can be done by increasing the amount of recycled wood which requires less energy for drying. Sometimes up to even 100% recycled wood is used by the WBP industry. These amounts depend primarily on technical limitations but also on the (regional) availability of recycled wood. In some regions, e.g. where large energy plants are located, less recycled wood is available for the WBP sector. Since drying of wood is the main energy-consuming process stage, all producers already use the best techniques to dry wood as efficiently as possible.

With relatively high energy demands operating energy efficient plants in our sector is a financial necessity so our industry is always an early adopter. Therefore given the high degree to which such energy use reductions have already been brought about, further abatement would be marginal (law of diminishing returns) and hence cost for further improvement is very high.

Consequently, the Proposal for a Directive amending Directive 2003/87/EC is not considering properly the positive contribution of the WBP sector to the European climate goals. While the increased target of 2.2% annual emission reduction is necessary in an overall European context in order to reach the 43% reduction goal by 2030, it should not be applied indiscriminately to all industrial sectors. Emission reduction should be calculated on a sector basis, taking into account how much emission still needs to be decreased from 2021 onwards, and this should be reflected in benchmarks evaluation.

**Carbon storage in Harvested Wood Products**

Another very significant contribution of the wood-working industries to emission reduction plans and therefore to reaching the climate goals is not accounted for in ETS: the storage of carbon in Harvested Wood Products (HWP) and the multiple substitution effects in the life-time of a wood product (cascading principle).

HWP have the unique ability to store CO$_2$ from the atmosphere. Wood products and panels therefore extend the period that CO$_2$ is captured by forests from the atmosphere. Thus increasing the use of HWP is a straightforward way of reducing climate change.

According to Mantau, U. (2012)$^1$, Wood Industries$^2$ produce 169.1 million m$^3$ of finished products each year. 113.6 million m$^3$ are stored in use$^3$ leading to a carbon sequestration of 104 million t CO$_2$. It is worth noting that in this study only the direct material effects of carbon sequestration for wood products stored in use are counted. The substitution effects of wood in comparison to other products are not considered. These effects can be four times higher. Wood can often be used to substitute for materials like steel, aluminium, concrete or plastics, which require large amounts of energy to produce and have higher carbon intensity.

In most cases the energy necessary for processing and transporting wood is less than the energy stored by photosynthesis in the wood and it is also much lower than the energy required for producing other materials like concrete, steel and aluminium. For instance, every cubic meter of wood used as a substitute for other building materials reduces CO$_2$ emissions to the atmosphere by an average of 1.1 t CO$_2$. If this is added to the 0.9 t of CO$_2$ stored in wood$^4$, each cubic metre of

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1 Mantau, U. (2012), Wood Flow in Europe (EU27), project report
2 Wood Industries include sawnwood, panels and others, meaning NACE code 16
3 66.9% of consumed wood for panels is stored in use
4 CEI-BOIS, EOS, EPF (2012), Tackle Climate Change, Use Wood, Plant a Second Forest
wood saves a total of 2 t CO₂. Based on these figures, a 10% increase in the percentage of wooden houses in Europe would produce sufficient CO₂ savings to account for about 25% of the reductions prescribed by the Kyoto Protocol. The picture is even better for wood when compared to steel only. It has been estimated that an annual 4% increase in Europe’s wood consumption would sequester an additional 150 million tonnes of CO₂ per year.

The carbon storage by HWP has been recognised by the Land Use, Land Use Change and Forestry (LULUCF) accounting rule. Decision 529/2013/EU states that “the increased sustainable use of HWP can substantially limit emissions into and enhance removals of GHG from the atmosphere.” This Decision defines rules for the national reporting of emission reductions reached in the LULUCF sectors by the increased use of HWP. This accounting is possible since January 2013 and the reporting is obligatory from 2015 onwards.

The Proposal for a Directive amending Directive 2003/87/EC foresees to make 400 million allowances available for – highly controversial – Carbon Capture and Storage (CCS) technologies and for innovative renewable energy technologies, which equals support in the amount of 8 billion EUR, based on conservative estimations of the price of one tonne of CO₂ following the reforms in 2020. The basic principle “that allowances will not need to be surrendered for CO₂ emissions which are permanently stored or avoided”, however, should be applied to all industry sectors, not only to newly developed technologies. Wood products have been storing carbon for centuries, which is not acknowledged in ETS. This means of course, that in order to reach additional positive climate effects and decarbonisation of the economy, an increase in HWP is necessary. With the current policy proposal, however, a decrease is to be expected, hurting the reindustrialisation and climate European goals.

**Economic consequences**

In 2014, the WBP sector (NACE 16.21) was been removed from the list of sectors deemed to be exposed to a significant risk of carbon leakage for 2015-2019 under the ETS. This means economic disadvantages for an industry which is already struggling in front of an ever-increasing competition for wood resources due to the incentive systems for bioenergy stemming from ETS and Renewable Energy Directive (RED) which are causing a dramatic increase in the cost of wood (incl. waste) materials and a significant reduction in volumes available for panel manufacturers.

There is no doubt that the ETS and initiatives spawned under the RED have acted as a strong incentive to burn wood for energy production in preference to following cascade principles of use, reuse, recycle etc. Where the WBP industry burns non-recyclable process derived residues to generate process energy, other sectors are heavily incentivised to use any woody biomass including virgin wood and recyclable wood in order to reduce their ETS allowance requirements since woody biomass is considered to be ‘carbon neutral’. In terms of the ETS goals, this is nonsense since generally speaking the use of wood for bioenergy results in bigger CO₂ emissions per unit of energy compared to fossil fuels.

In addition, the WBP sector competes for its raw material with the energy industry and the paper industry. Since the energy industry is already receiving high subsidies for increasing their share of renewables (biomass with wood especially), and the pulp and paper industry is recognised as at risk of carbon leakage, exclusion of the WBP sector has created further unfair competition for the same raw material: wood.

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5 CEI-Bois Roadmap 2010
According to the Indufor “Study on the wood raw material supply and demand for the EU wood-processing industries” commanded by DG ENTR, by 2016 a 63 million m³ wood raw material supply shortfall will exist for bio-energy. This equates to 16% of the roundwood going to wood-processing or 9.6% of their total wood raw material supplies.

The lack of wood at affordable costs is making investments in WBP sector uncertain and less rentable within the EU, reducing its attractiveness.

Furthermore, the EU WBP sector is facing strong competition from European countries outside the EU, which are not subject to comparable GHG restrictions. EPF would like to underscore the real carbon leakage (and job leakage) “phenomenon” that can already be observed in Europe for the WBP sector and, especially for OSB, particleboard and MDF. Numerous plants in the EU have been forced to reduce capacity or to close while the shares of production capacities built outside the EU in countries such as Russia, Turkey, Belarus, Ukraine and Serbia increased at a significantly higher pace.

Although it cannot be directly shown that the implementation of the RED (2009/28) and the Phase II of the EU-ETS directive is the cause of capacity relocation, it is an important contributory factor besides the general economic crisis for the reduction of the EU production capacity of OSB, particleboard and MDF which started in 2009. All possible efforts to stem relocation of the WBP industry shall be used.

Conclusions

The WBP sector urges the EC to reconsider this proposal. In the case of wood-based panels, the laudable ambition of emission reductions could have the negative side consequence of a reduction in carbon storage wood-based products. This would effectively reduce the EU’s overall ability to prevent climate change, thereby reversing the effects of the original emission reduction goals.

EPF specifically asks the EC to review the allocation of emission certificates towards the WBP sector, recognising the storage of carbon in products manufactured by WBP producers through deliverance of free emission allowances. EPF requests closer and deeper dialogue with the EC to see how this proposal can be modified in order to achieve the ultimate goals of a low-carbon Europe and prevention of climate change.

European Panel Federation (EPF):
EPF has members in 25 countries and represents the manufactures of particle board, MDF and other fibreboards, OSB, and plywood. The EU wood panel industry has a turnover of about 22 billion euro every year, creates over 100,000 jobs directly and counts more than 5,000 enterprises in Europe.